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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,843	10/04/2005	Johan Friberg	4448-31	7503
23117 7590 12/28/2006 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER GREGORY, BERNARR E	
			ART UNIT	PAPER NUMBER
			3662	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/28/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/538,843	Applicant(s) FRIBORG ET AL.	
	Examiner Bernarr E. Gregory	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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1. The drawings are objected to because the box-type drawing elements lack descriptive labelling per 37 CFR §1.84(o). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

If a box-type drawing element is intended to represent a power supply, for example, then it must be labelled, "POWER SUPPLY," or have an internationally accepted schematic symbol on the box-type drawing element that means, "power supply." Correction is hereby **required**.

2. The Specification is objected to under 37 CFR §1.71 and 37 CFR §1.77(b) and (c) in that: (1) it lacks proper sectional headers as set forth in 37 CFR §1.77(b) and (c),

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and (2) the mention of claim 1 near the top of page 1 of the specification must be deleted as improper extraneous matter. Correction is hereby **required**.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 1 of independent claim 1, the term "ground radar data" is indefinite and unclear as to whether it refers to radar data relating to objects on the surface of the earth or to objects underground. Please see 37 CFR §1.75(d)(1).

On line 1 of claim 1, the phrase "with polarization information" is indefinite and unclear in context in that there is no recited structure throughout claims 1-5 that relates to polarized signals.

On line 4 of claim 1, the phrase "of transmitter and receiver type" is indefinite and unclear in context per se and as to whether each antenna is "of transmitter and receiver type" or whether one antenna is for a transmitter and the other antenna is for a receiver.

On line 5 of claim 1, the use of the verb "governing" is unclear in context. Since it is paired with the verb "controlling," it must mean something other than controlling.

On line 5 of claim 1, "the ground radar" lacks antecedent basis since there is no earlier-recited "ground radar."

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On lines 8 and 9 of claim 1, the following lack antecedent basis: "the reflected radar pulses"; "the rotating pair of antennas"; and "the A/D converter."

On line 11 of claim 1, it is unclear in context what the subject of the verb "is" is.

On lines 2-3 of claim 2, "the transmitter antenna" lacks antecedent basis.

On lines 2-3 of claim 3, "the A/D converter" and "the receiver antenna" each lacks antecedent basis.

On line 2 of claim 4, it is unclear in context what is meant by "high frequency equipment." Please see 37 CFR §1.75(d)(1).

Dependent claims 2-5 are unclear in that they depend from unclear independent claim 1.

5. Due to the lack of clarity of claims 1-5, it is not possible at this time to indicate allowable subject matter.
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The examiner-cited prior art is of interest for showing the general state of the related prior art. Please especially note the rotary couplings (items 3 and 6) in Figure 1 of Alfandari et al ('450) and the rotating antennas (items 52 and A₁ through A_n).


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571)

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272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Bernarr E. Gregory
Primary Examiner
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